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Module: Network Operating Systems and Services

Lecturer: Dr. Dipo Dunsin & Md.

Sadeque Imam Shaikh

Assignment Title: Configure and manage the

Virtualised Enterprise

network

Programme: BSC Applied Computing

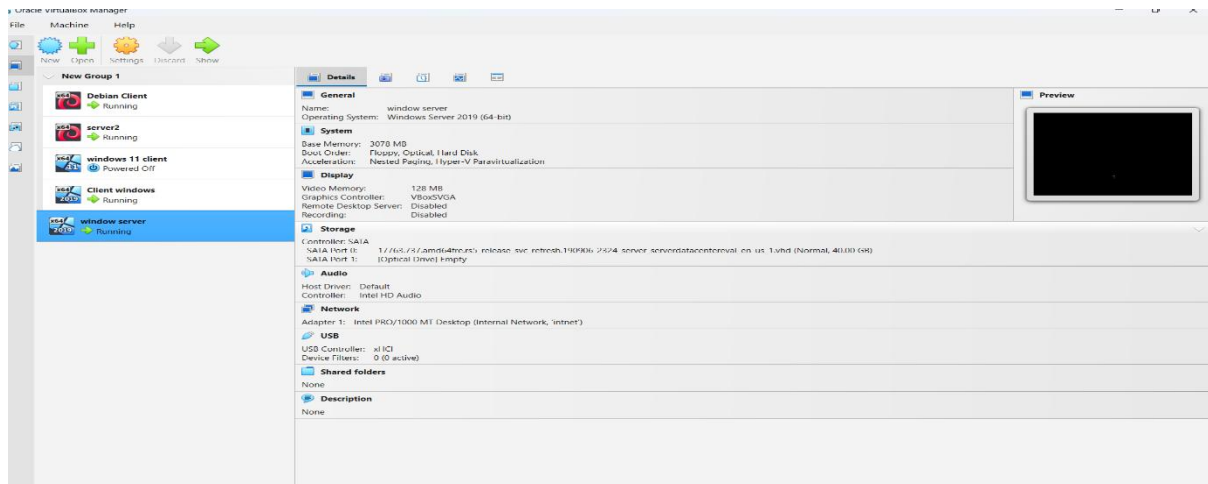
Submission deadline: Task 1 : Tuesday, 16th December 2025

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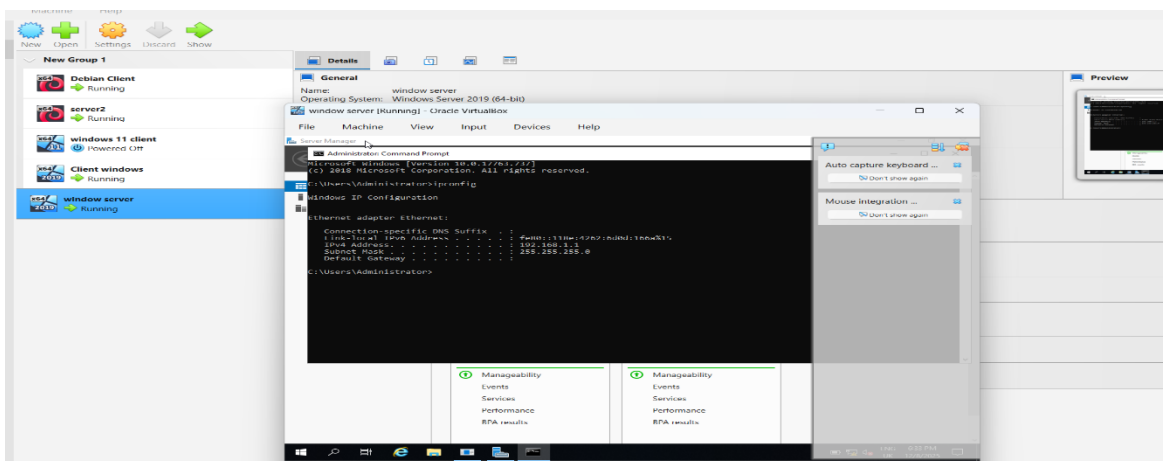
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Installation of virtual Machine

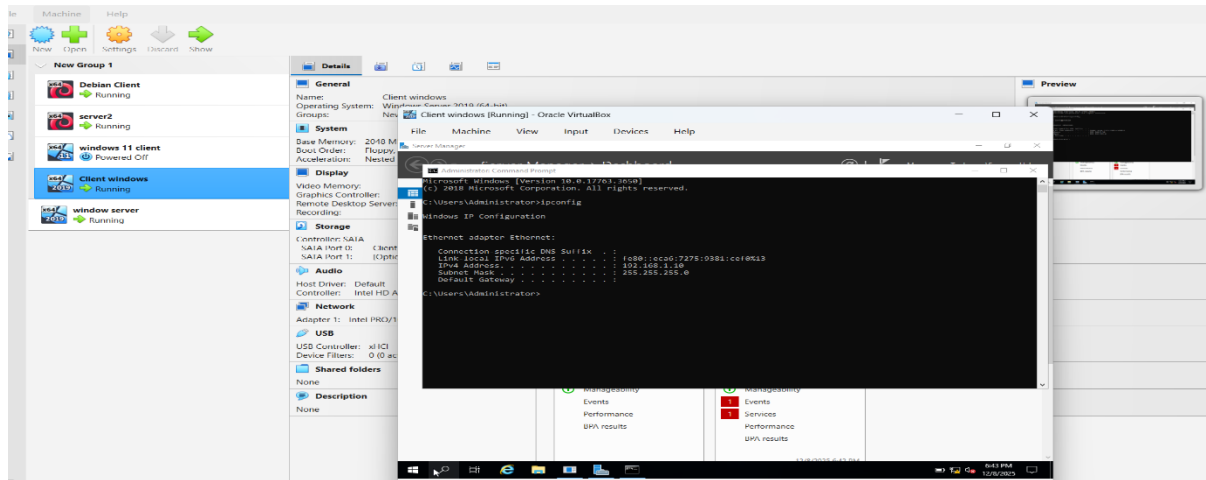
This is the four virtual machine successfully installed Windows Server, Windows Client, Debian Server and Debian Client.



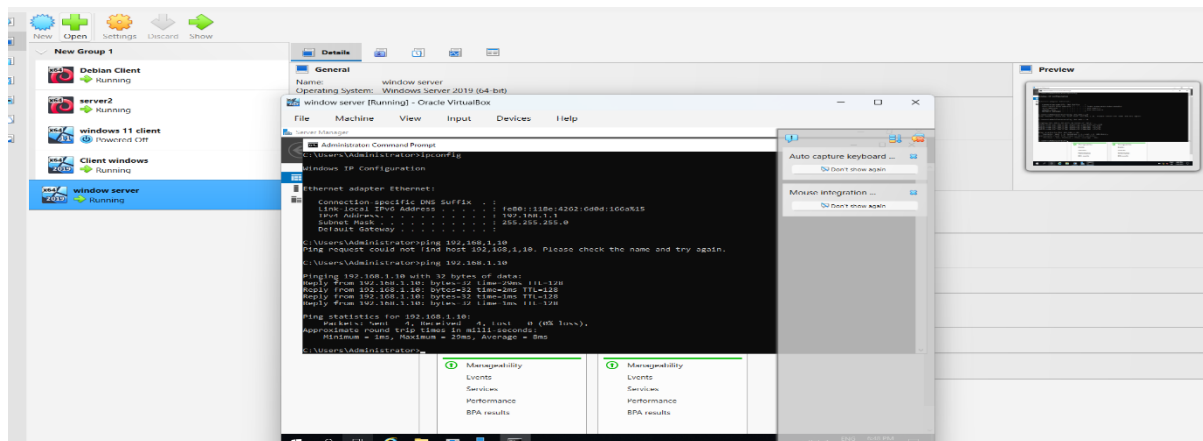
This is using the ipconfig command to check ip address of Windows Server



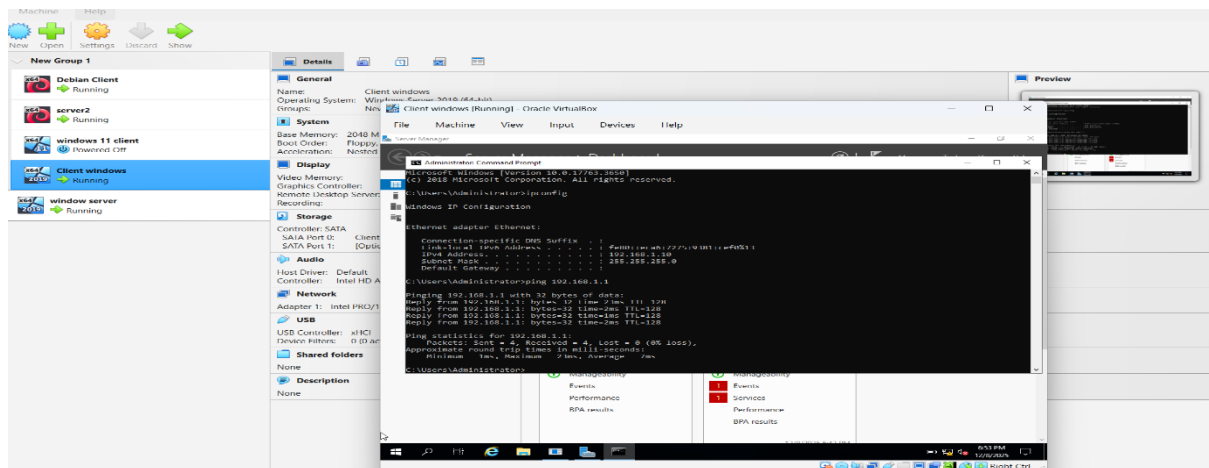
This is using the ipconfig command to check ip address of Windows Client



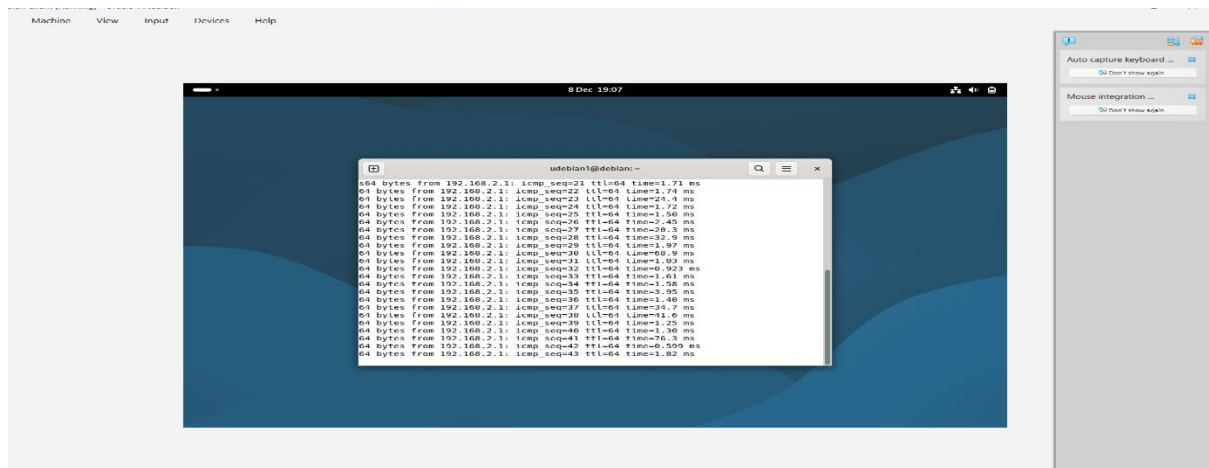
This is using Ping command to connect Windows server to Windows client



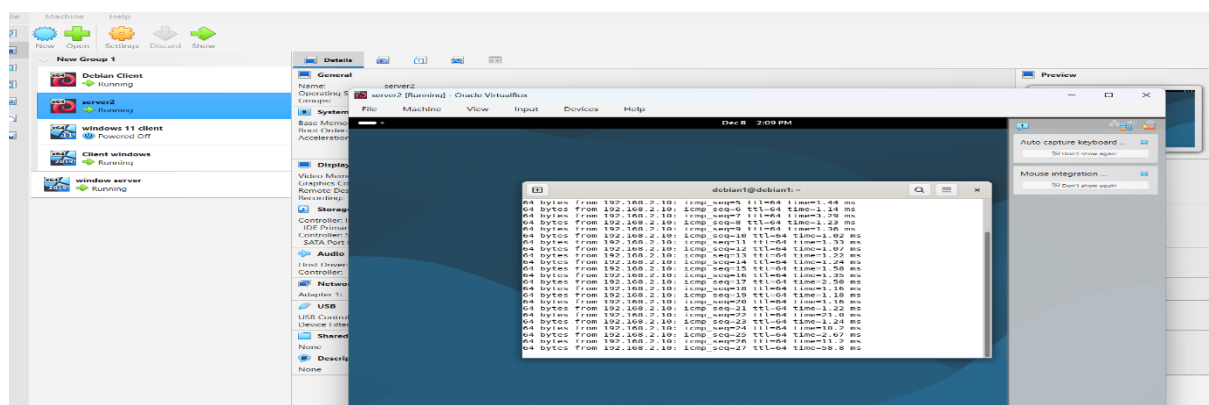
This is using Ping command to connect Windows Client to Windows Server



This is using Ping command to connect Debian Client to Debian Server

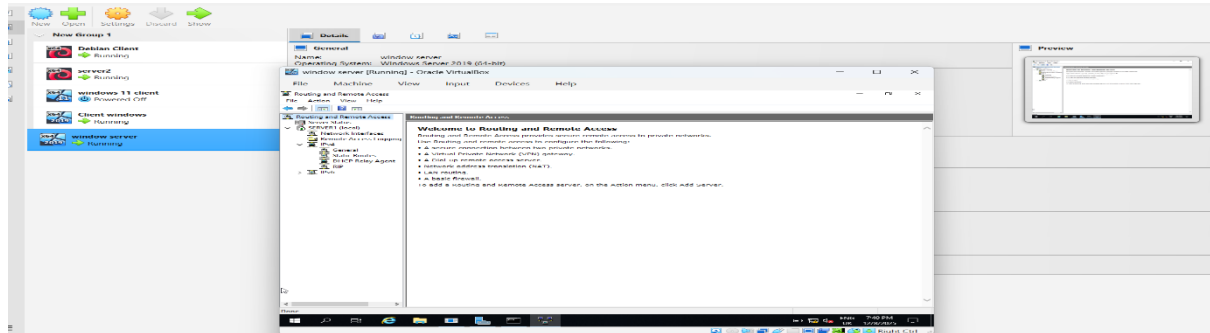


This is using Ping command to connect Debian Client to Debian Server

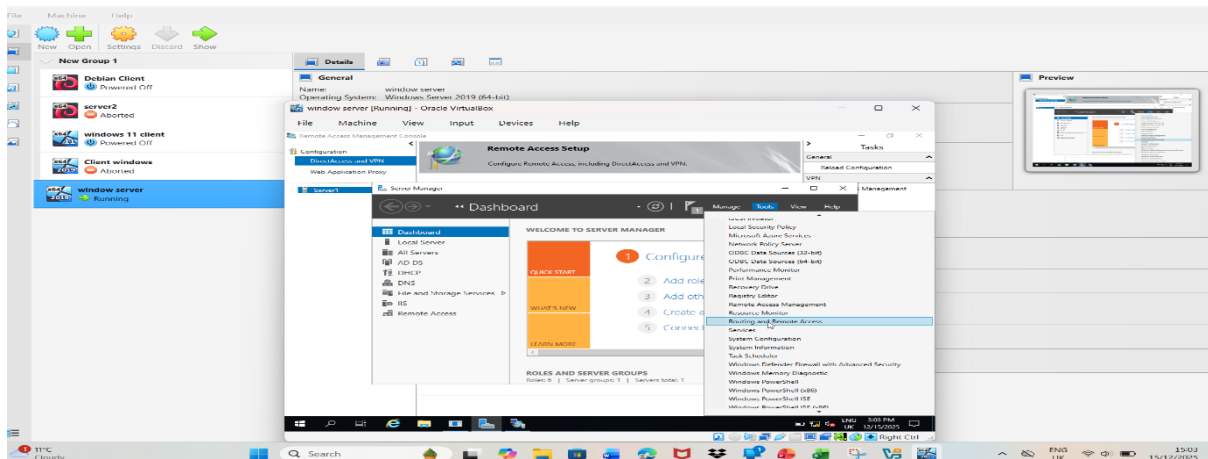


Routing and Remote Access Service 1

Routing in Swansea Network and Installation of Remote Access Service Q 1.1

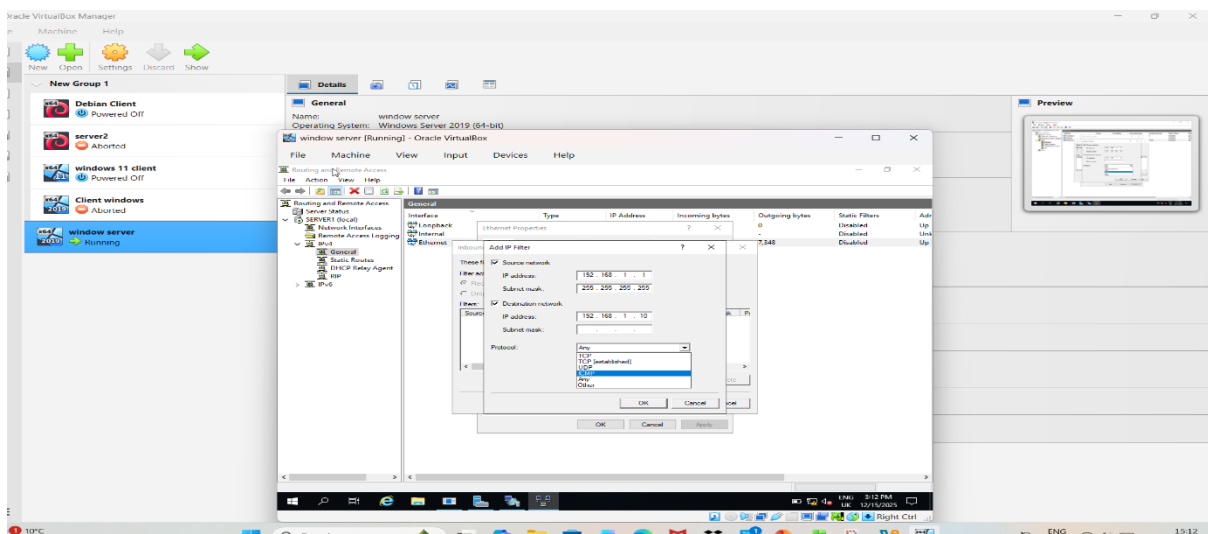


Installation, Routing and Remote Access Service Q1.1

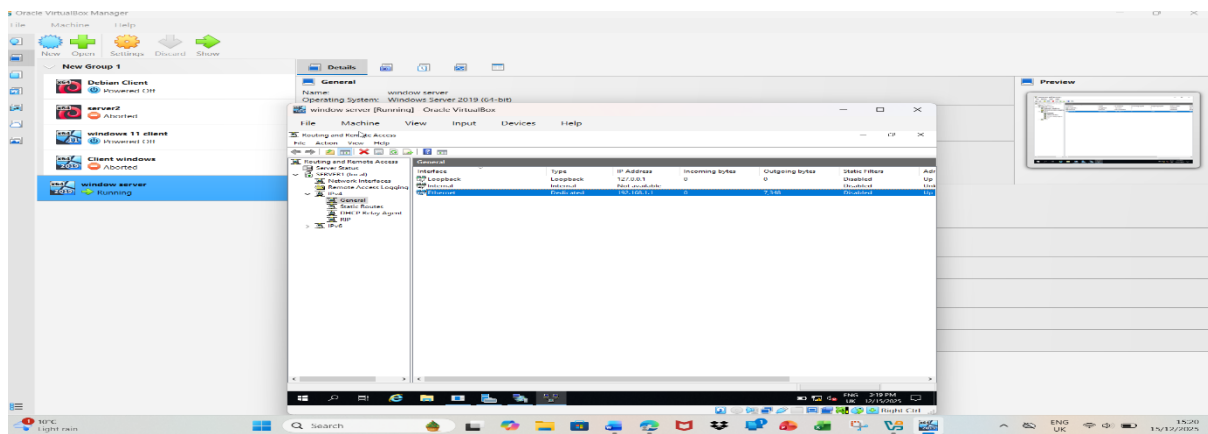
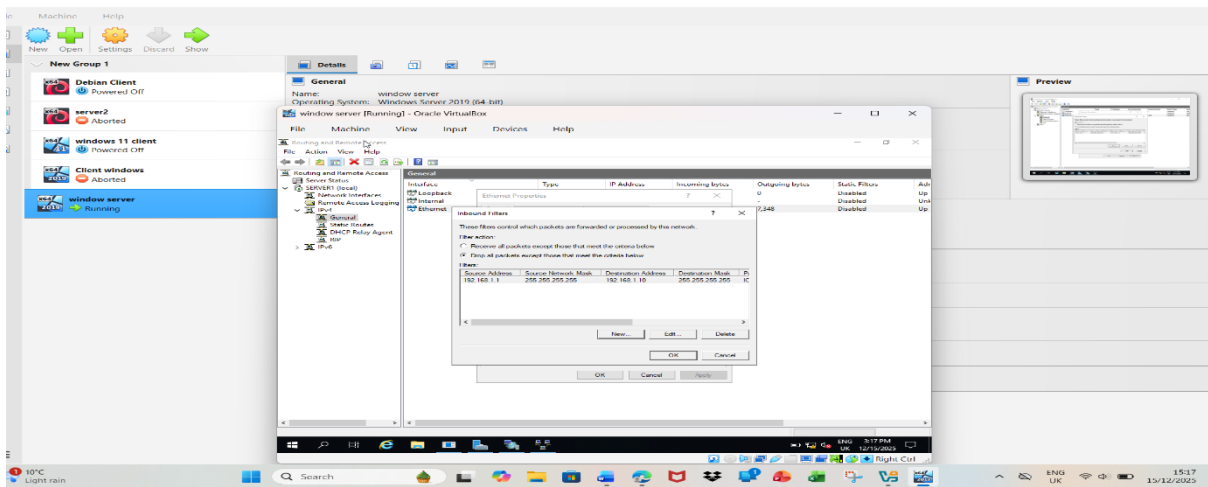


Modification of firewall rules to allow ICMP Traffic. 1.2

this shows that I specified the ICMP protocol and the IP Address I want to block 1.2

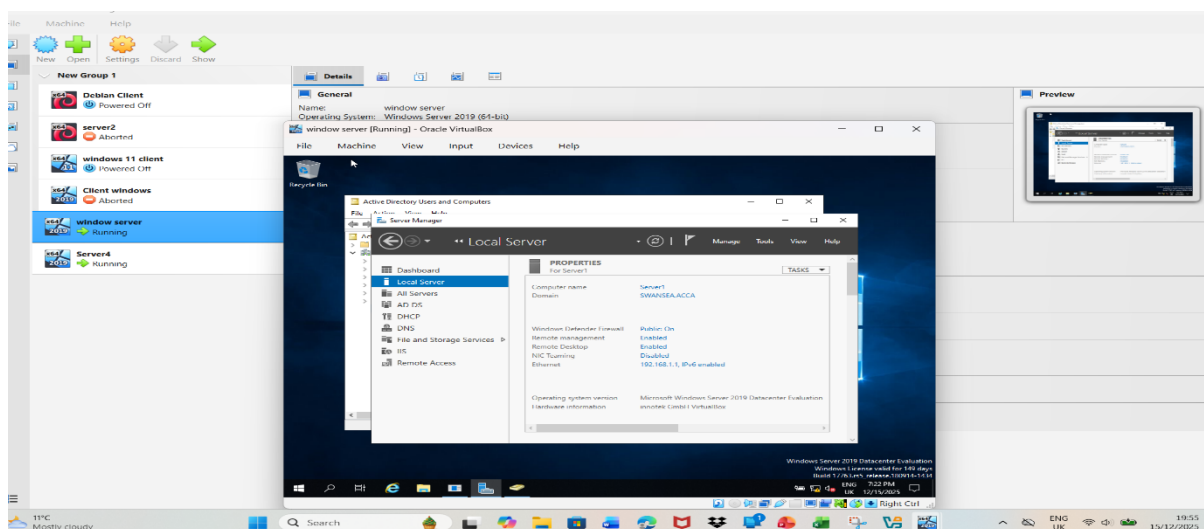
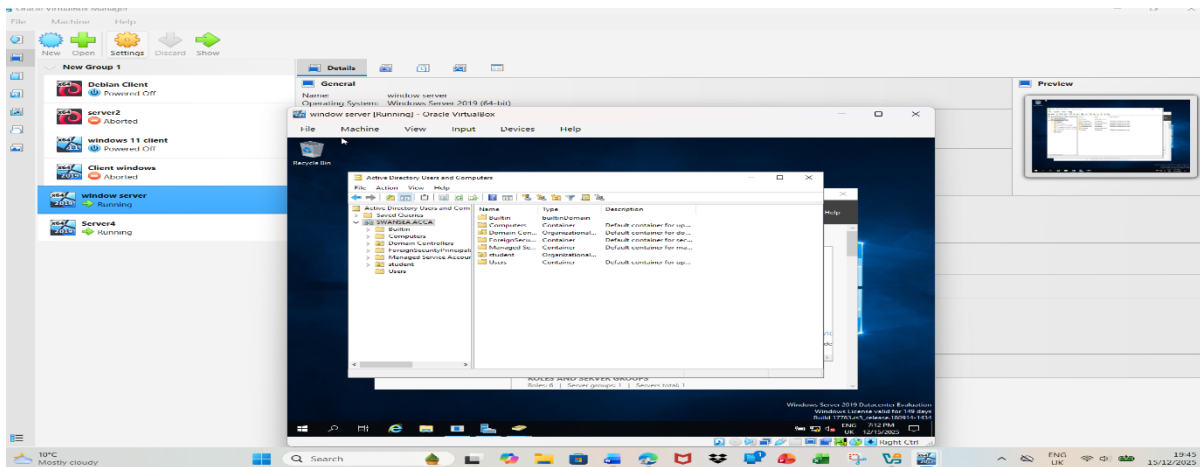


This shows that ICMP Traffic has been successfully configured, and it takes effect immediately



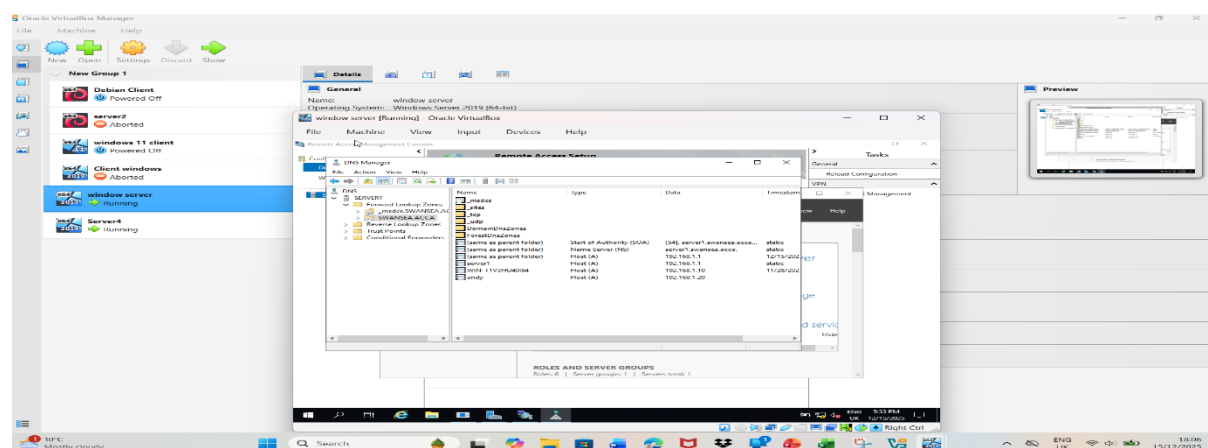
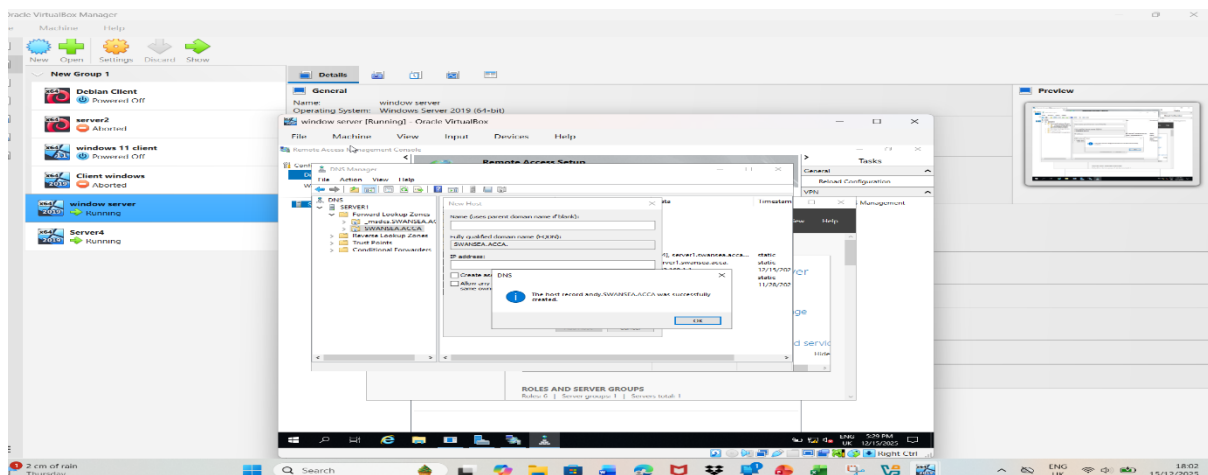
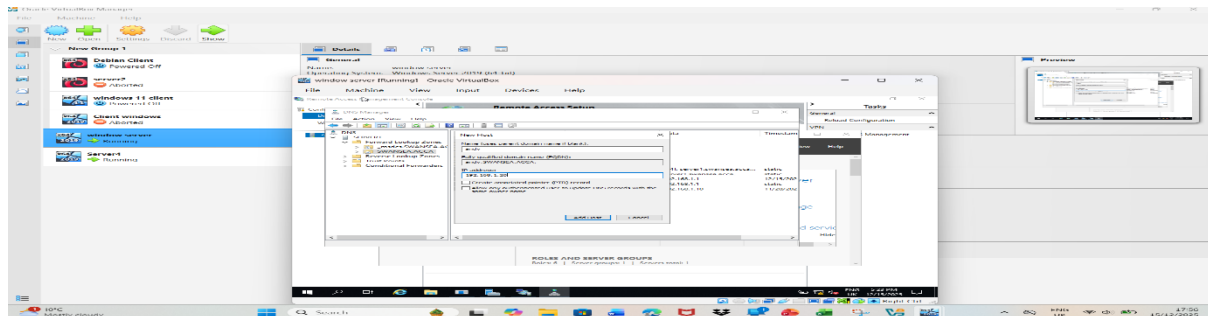
Domain Server (Swansea) 2

Successfully create a forest named Swansea.acca 2.1



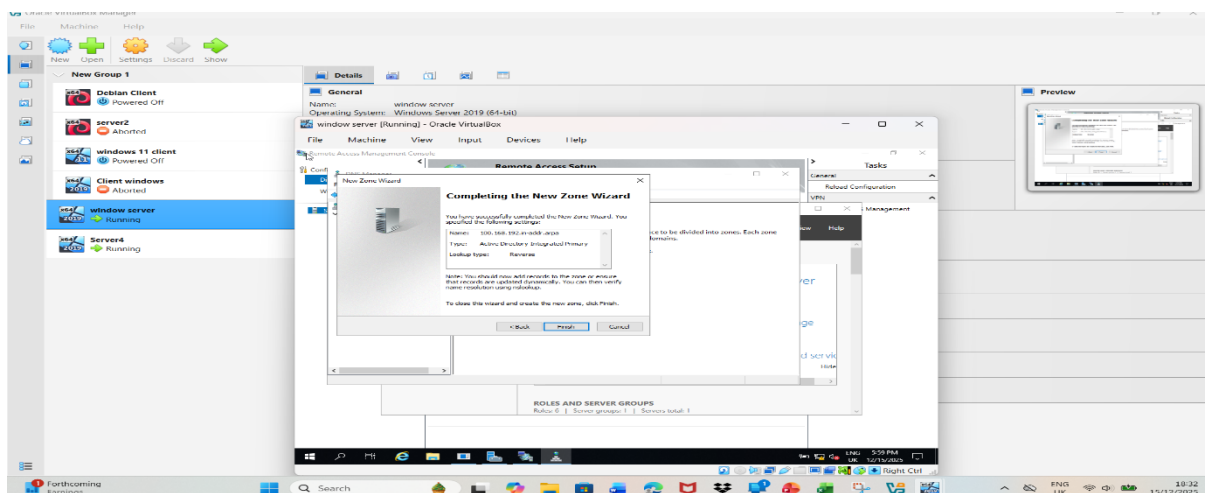
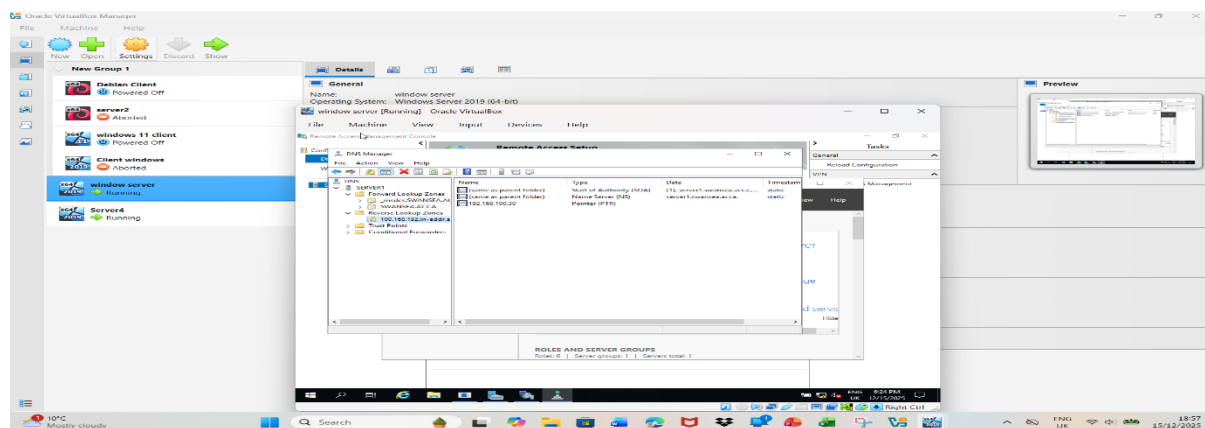
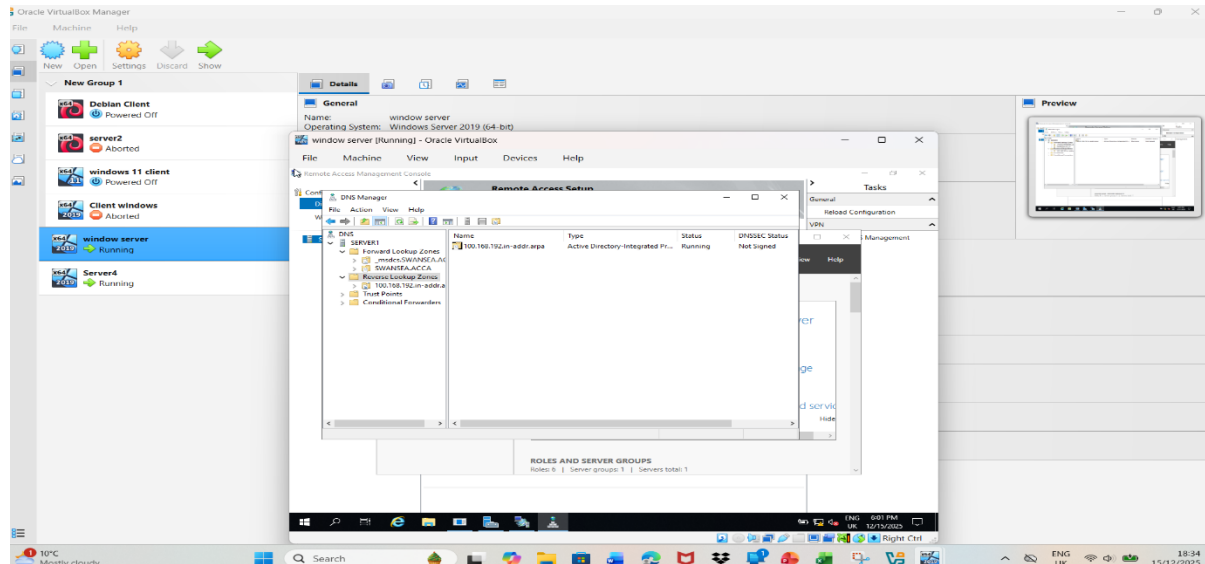
Create all appropriate A

This is that Andy have been added and recorded for all servers on Swansea Network
2.2



Create a reverse lookup zone

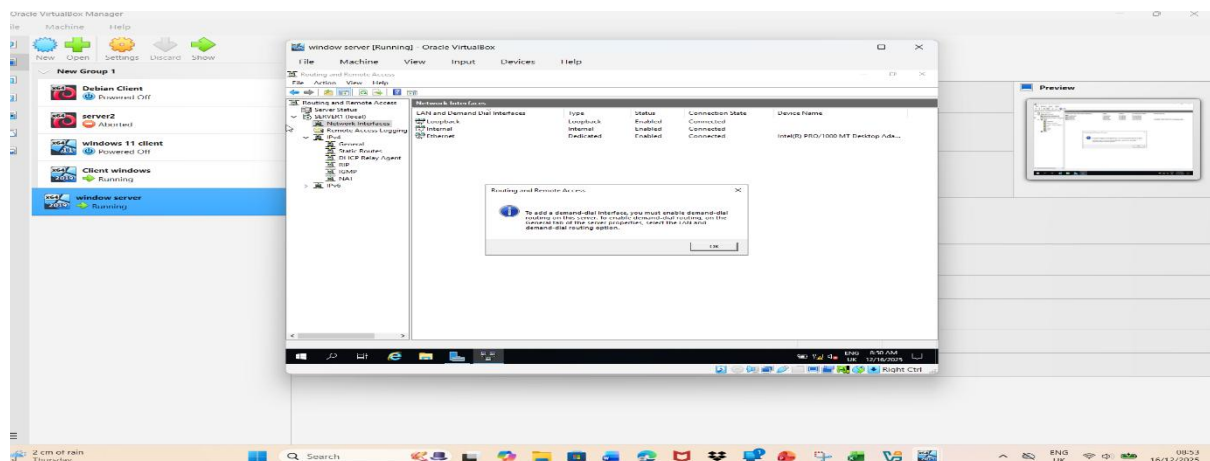
This shows how a reverse lookup zone was created with PTR records for all servers.2.3



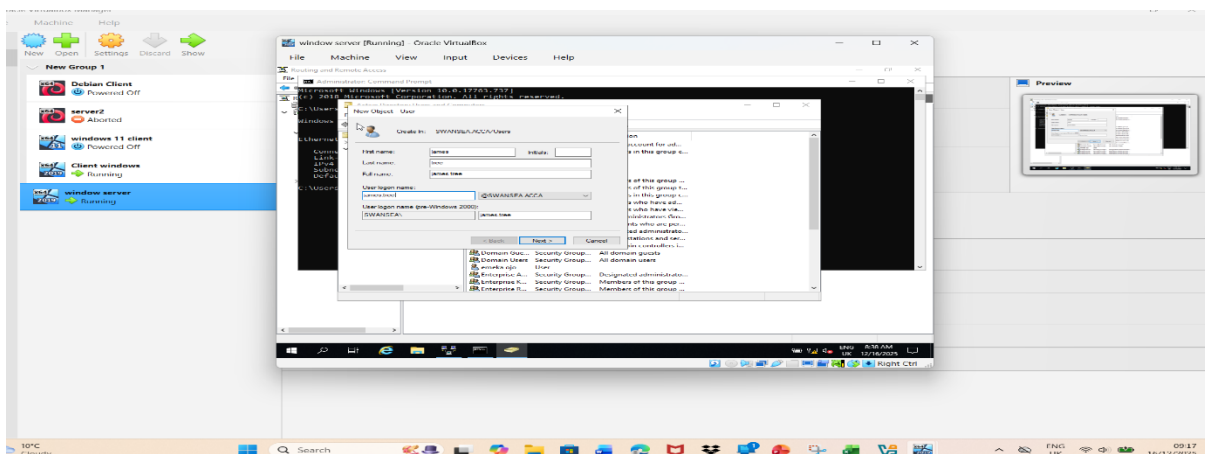
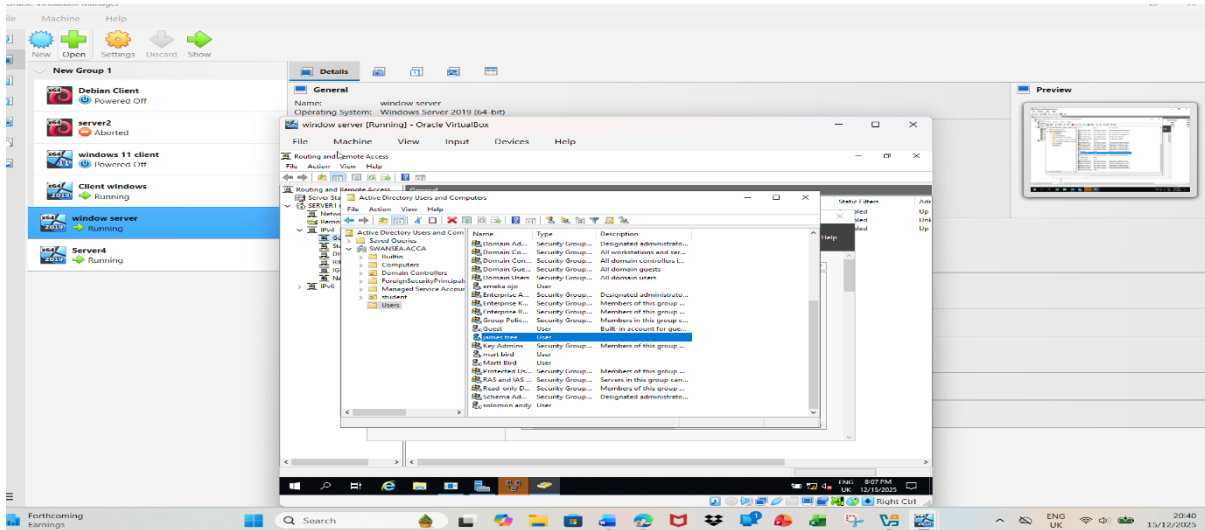
Configure Site-to-Site VPN to London Network 3.1

For some unexplainable reason, my virtual window machine can not set up VPN, but I know how to configure it.

To set up VPN right right-click on Network interface, select New Demand Dial Interface, then give the network name as VPN1, select Point-to-Point Tunnelling Protocol then put the Server ip address 192.168.1.1 the add network 192.168.100.0 the subnet mask 255.255.255.0 then metric 1

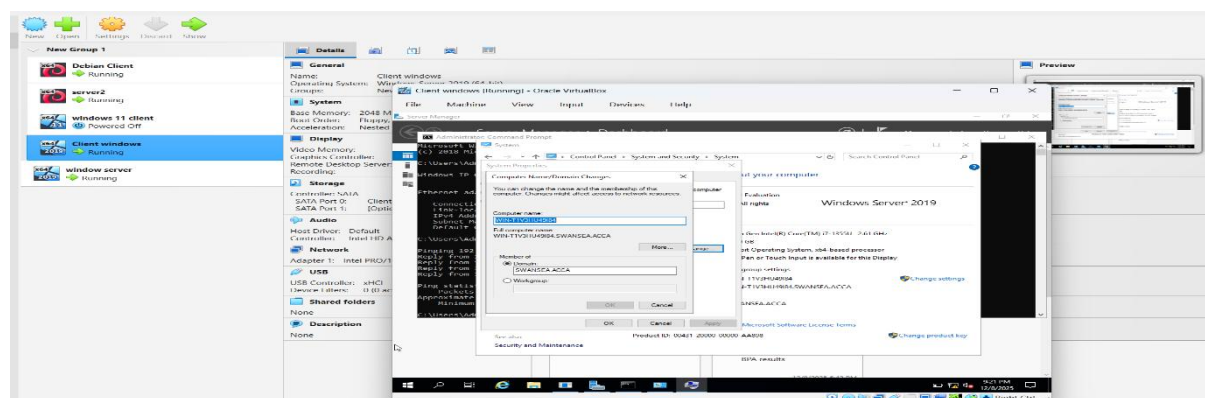
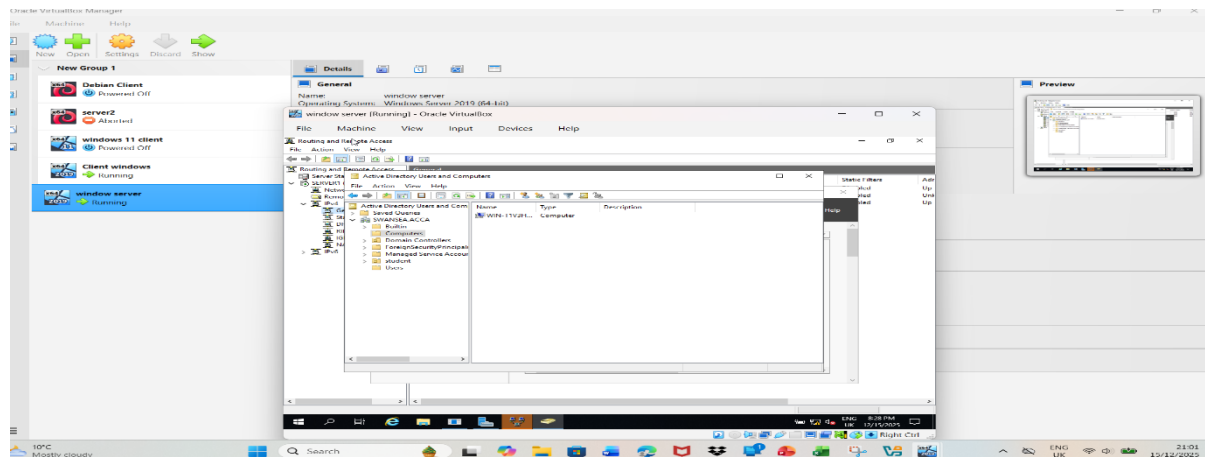


successful creation of a user (james.tree.acca)

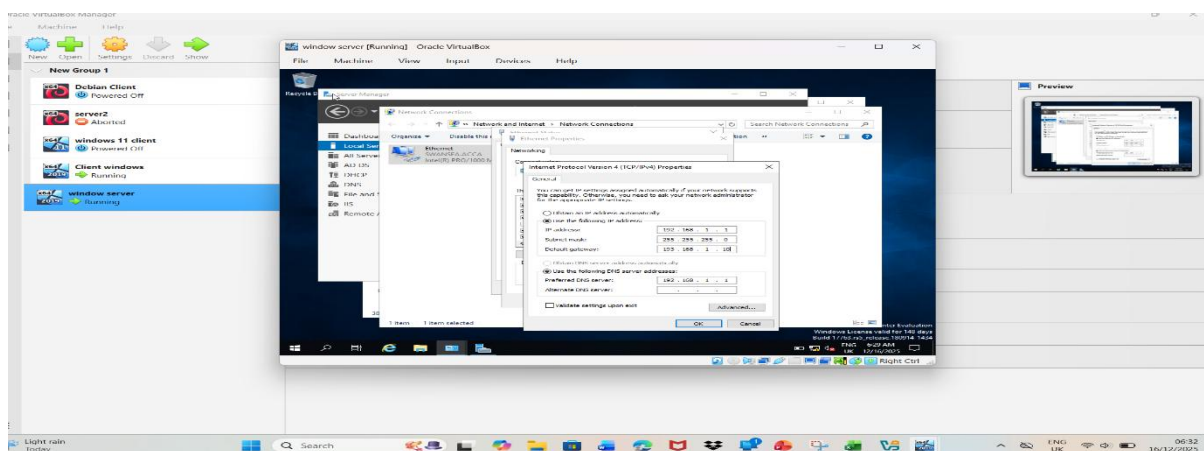


Domain Membership 5

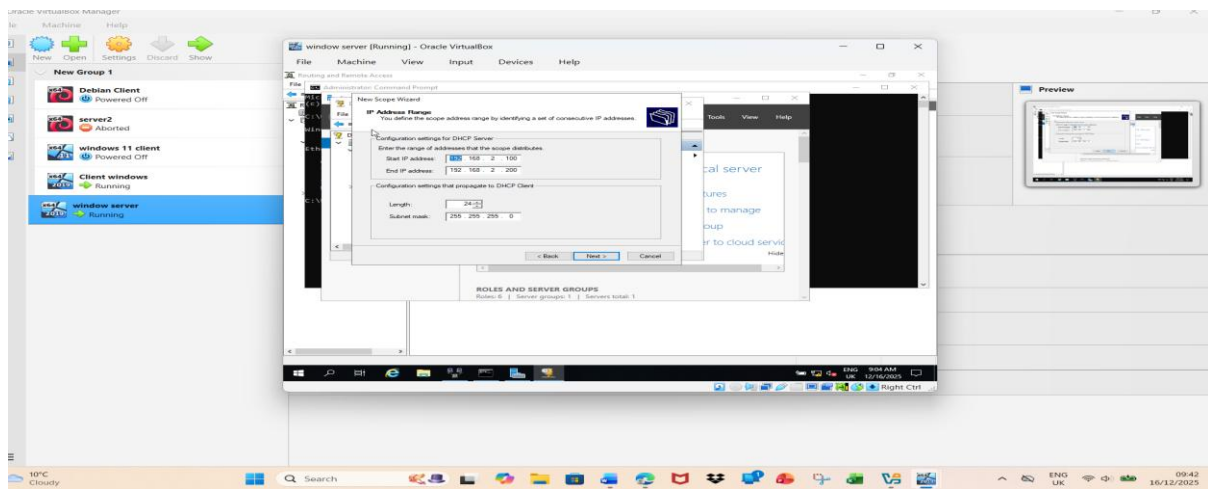
Join Windows Client to the Windows Server Swansea.acca domain. 5.1



Including the ip address of the Windows client machine as the gateway for easy linkage

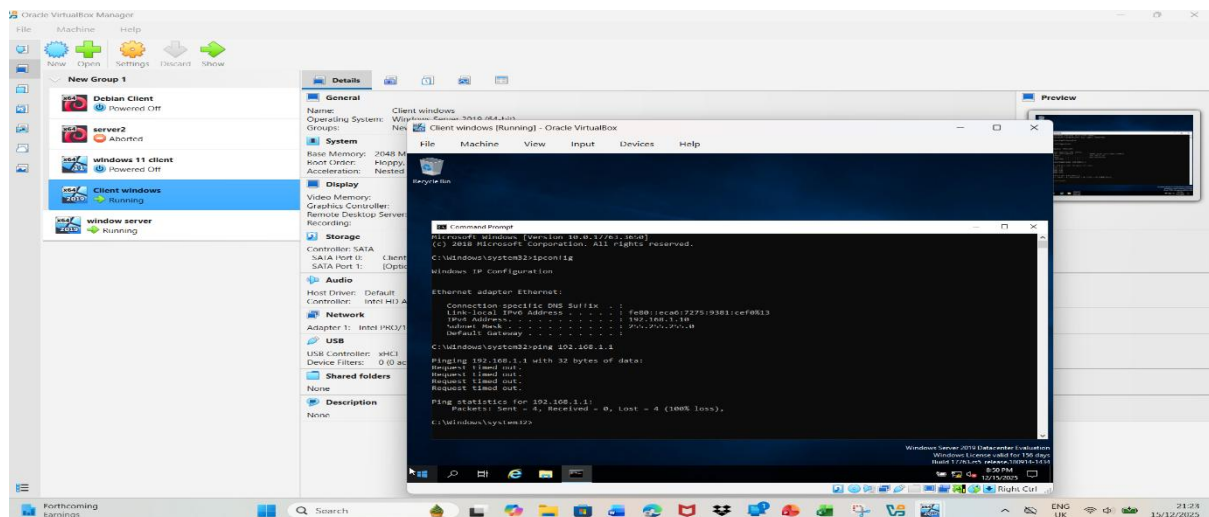
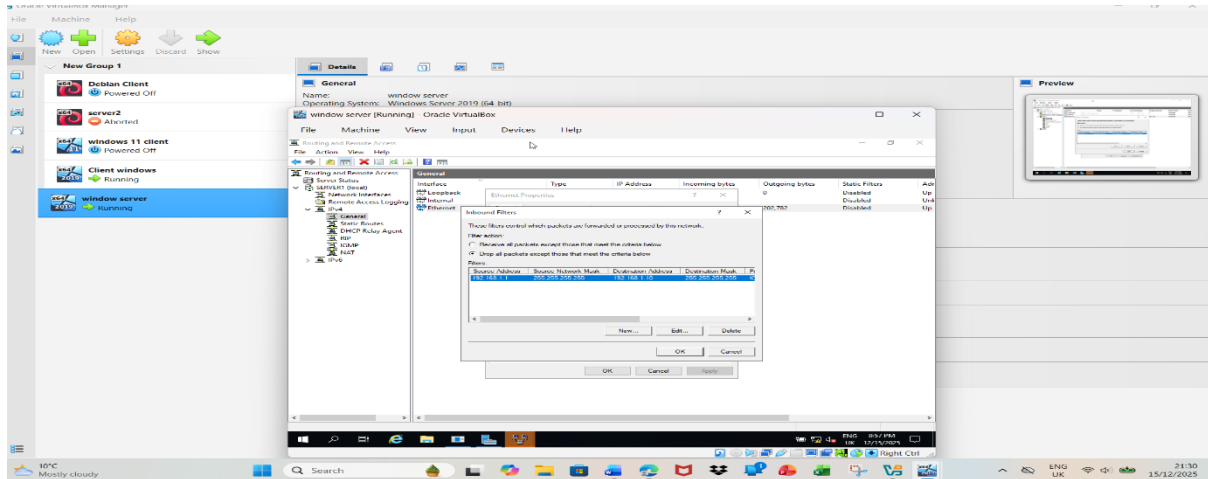


DCHP Server 6

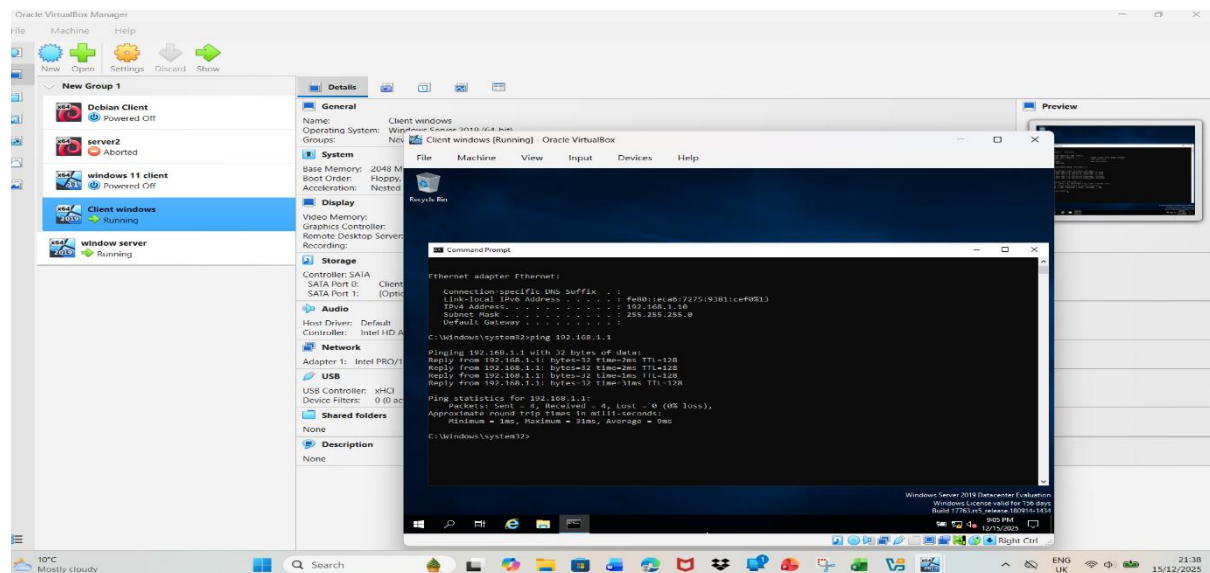
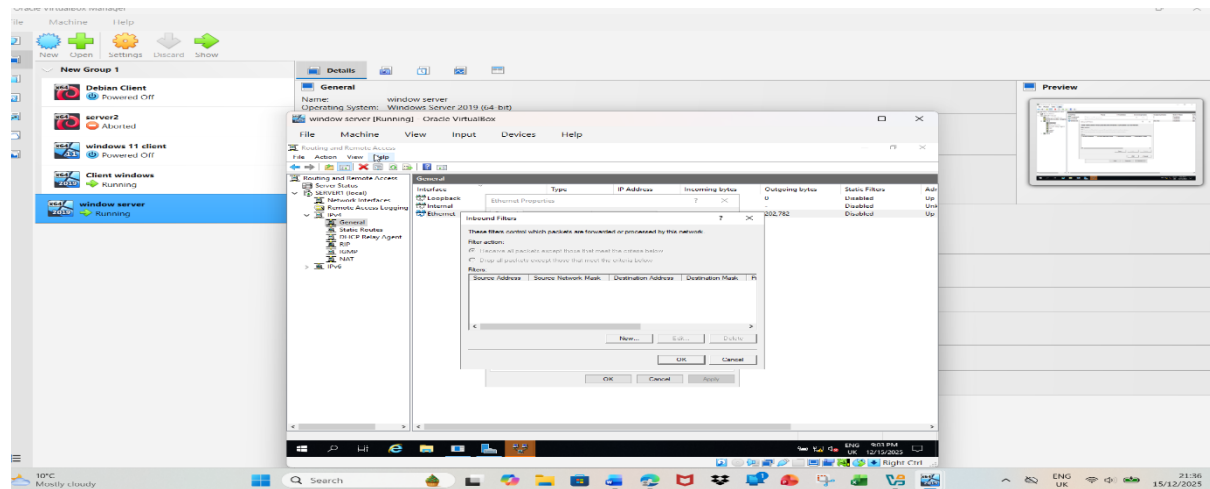


Test and Troubleshoot7

Unsuccessful ping from ping from window Client because of firewall modification in place

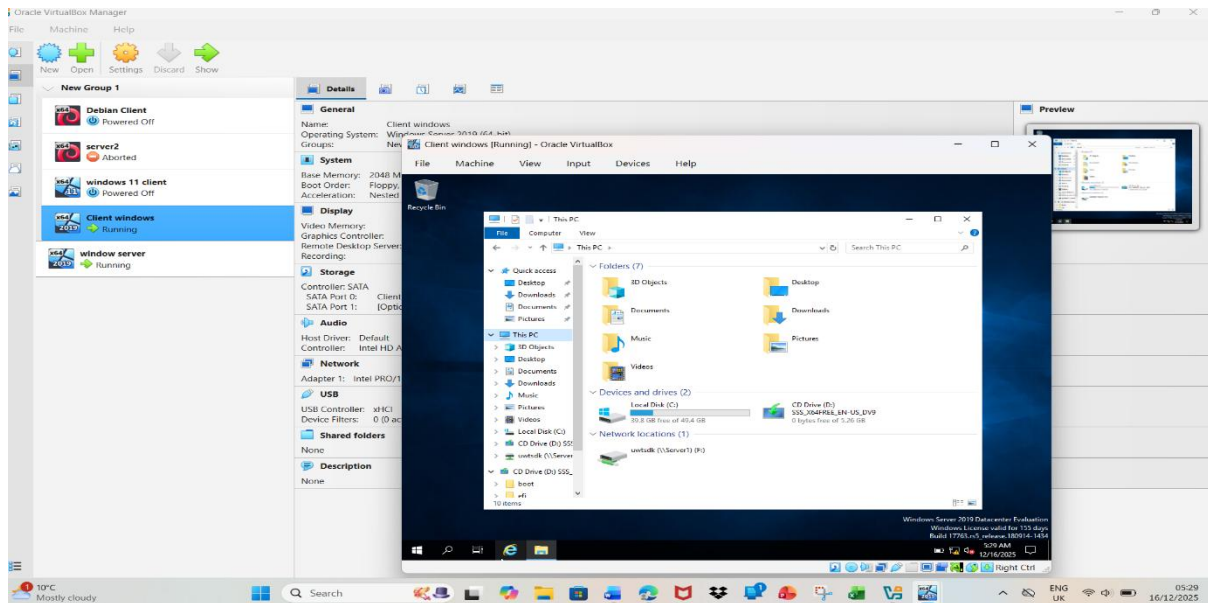


successful ping from ping from window Client because of firewall modification
has been remove



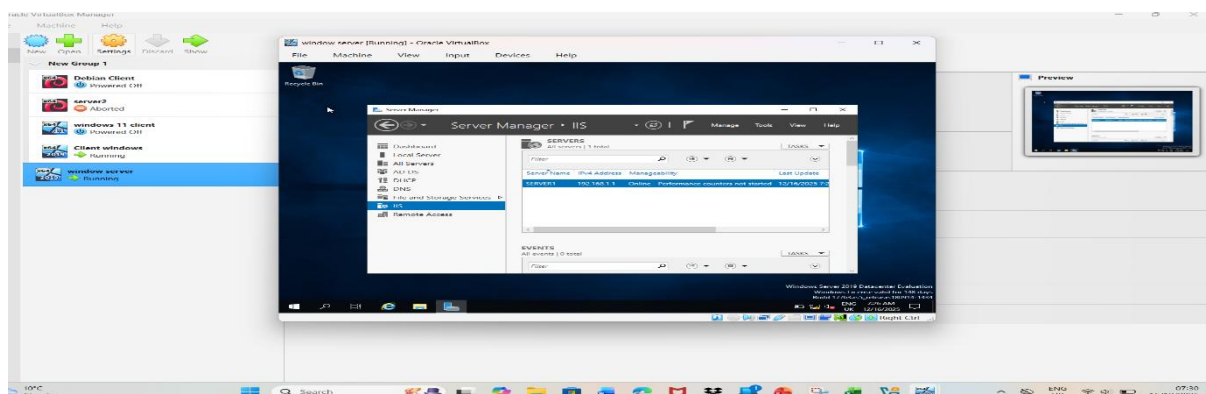
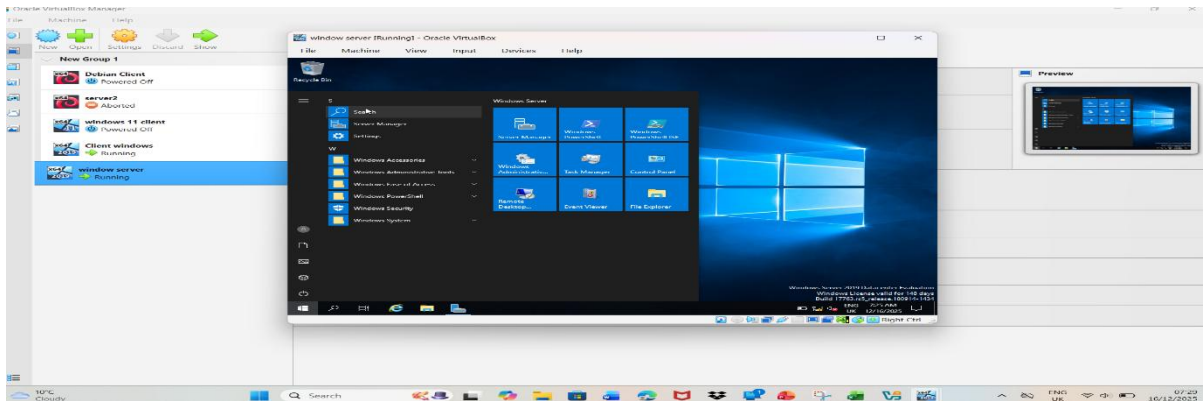
Disk Drive 8

I just mounted the second disk drive called (UWTSDK) to E:\SwanseaFiles. Share and assign to a user called (james.tree) I created in my domain, and I have giving him full permissions.



IIS Server 9

During the installation of ADDS, DNS, remote access and DHCP the IIS was installed automatically



Remote Desktop Services 10

10.1 I just configured remote access from my client Windows to log in as the server network machine from my client. But first, I have to enable remote access on the server window and client window

